

ABSTRACT OF THE DISCLOSURE

A method, simulation, and apparatus are provided that are highly suitable for treatment of benign prostatic hyperplasia (BPH). A catheter is disclosed that includes a small diameter disk loaded monopole antenna surrounded by fusion material having a high heat of fusion and a melting point preferably at or near body temperature.

Microwaves from the antenna heat prostatic tissue to promote necrosing of the prostatic tissue that relieves the pressure of the prostatic tissue against the urethra as the body reabsorbs the necrosed or dead tissue. The fusion material keeps the urethra cool by means of the heat of fusion of the fusion material. This prevents damage to the urethra while the prostatic tissue is necrosed. A computer simulation is provided that can be used to predict the resulting temperature profile produced in the prostatic tissue. By changing the various control features of the catheter and method of applying microwave energy a temperature profile can be predicted and produced that is similar to the temperature profile desired for the particular patient.